



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,970	11/25/2003	Douglas W. Babcock	A1W12376US	9051
23935	7590	09/05/2006	EXAMINER	
KOPPEL, PATRICK & HEYBL 555 ST. CHARLES DRIVE SUITE 107 THOUSAND OAKS, CA 91360			NGUYEN, VINH P	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,970	<b>Applicant(s)</b> BABCOCK ET AL.	
	<b>Examiner</b> VINH P. NGUYEN	<b>Art Unit</b> 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 11-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-9, 22-24 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 4-6, 10, 25-27, 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2829

1. Claims 3-4,9-10,24-25 and 30 are objected to because of the following informalities:

In claims 3,9,24,,30, it is unclear how “a common layer” and “a dielectric layer” are interconnected and associated with the input/output line.

In claims 4,10,25 and 31, it is unclear how the flip chip bump is interconnected with the T-coil.

Appropriate correction is required

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2,7,9, 22-23,28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Iorga (Pat No. 6,462,395)..

As to claims 1,7,22 and 28, Iorga discloses a test apparatus as shown in figure 5 having an input/output line (13,15) for connection to a DUT (73), a driver circuit (71) connected to apply test signals to said input/output line (13,15) for application to the DUT (73), a receiver circuit (19) connected to said input/output (13,15) to receive signals produced by the DUT (73),said receiver circuit having an associated capacitance (additional shunt capacitance from the receiver circuit “19”) and a first passive matching network (“96”, “97” as shown in figure 7) connected to the line (13,15) to at least partially compensate for the receiver circuit capacitance.

As to claims 2,8,23 and 29, Iorga discloses the first passive matching network (96,97) comprising a T-coil circuit.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3,8,24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iorga (Pat No. 6,462,395).

As to claims 3,8,24 and 30, Iorga discloses both T coils includes inductors (96,97) and driver and receiver circuit (19) but they are not implemented on a common layer and separate layer of an integrated circuit that is spaced from a common layer by at least a dielectric layer. It appears that the limitation of these claims are related to parts rearrangement. However, it would have been obvious for one of ordinary skill in the art to put both of the T coils and the driver and receiver circuit on an integrated circuit in order to make the circuitry more compact.

6. Claims 5-6 and 26-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5 and 26 are allowable since the prior art does not disclose "said driver circuit comprising the combination of a current mode driver having an associated capacitance and a voltage mode driver, said receiver circuit comprising a comparator circuit for comparing a signal received from a DUT to a reference, further comprising a second bi-directional passive matching network connected in series with said first bi-directional passive matching network to at least partially compensate for said current mode driver capacitance" as recited in claims 5 and 26 and in combination with other claimed elements. Since claims 6 and 27 depend from allowable claims 5 and 26.

7. The declaration filed on May 30, 2006 has been considered by Examiner.
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stark (Pat # 6,617,871) disclose method and apparatus for bi-directional signaling.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is 571-272-1964. The examiner can normally be reached on 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HA T. NGUYEN can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2829

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



VINH P NGUYEN

Primary Examiner

Art Unit 2829

08/30/06